The Impact of Learning Communities on Year 3 Performance

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Acknowledgments

- 26 Learning Community Faculty Members and 4 Staff members
- Associate and Assistant Deans of Curriculum
Disclosures

- None
Kirkpatrick’s Modified Hierarchy

- Change in Patient Outcomes
- Transfer of Learning to the Workplace
- Modification of Knowledge/Skills
- Modification of Attitudes
- Participation

Clerkship Year

LC students performed better than clinic students at the end of year 2 (outcome: OSCE)
In 2013, the University of Utah implemented a clinical method curriculum (CMC) to ensure students meet clinical skills milestones across four years of medical school.

Content is delivered in learning communities.
## Program Description

<table>
<thead>
<tr>
<th>MS Year 1</th>
<th>MS Year 2</th>
<th>MS Year 3</th>
<th>MS Year 4</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Phase 1</strong></td>
<td><strong>Phase 2</strong></td>
<td><strong>Phase 3</strong></td>
<td><strong>Phase 4</strong></td>
</tr>
</tbody>
</table>

**Phase 1**
- LC faculty deliver curriculum to students weekly (4 hrs each time)

**Phase 2**
- LC faculty meet with students to discuss Individualized Learning Plans

**Phase 3**
- LC faculty deliver a Transition to Clerkship course
## Year 1-2 Clinical Skills Instruction

<table>
<thead>
<tr>
<th></th>
<th>Classes 2013-2016</th>
<th>&gt; Classes of 2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Length of Instruction</td>
<td>4 months condensed</td>
<td>2 years expanded*</td>
</tr>
<tr>
<td>Mode of Instruction</td>
<td>Lecture + Groups of 25</td>
<td>Lecture + Learning Communities</td>
</tr>
<tr>
<td>Clinical Skills</td>
<td>History, Physical Exam, Communication, Write-ups</td>
<td>+ Clinical Reasoning, Advanced Exam Tech</td>
</tr>
<tr>
<td>Clinic experiences</td>
<td>30</td>
<td>18</td>
</tr>
</tbody>
</table>

*Same skills + clinical reasoning
Hypotheses

- LC students will have higher ratings from faculty and residents for their first clerkship compared to clinic students.
- Unsure what to expect for last clerkship and end-of-year 3 OSCE between LC and clinic students.
Clerkship Global Rating Form

- 19-items
  - Average score for CMC specific items: history gathering, physical exam, documentation, and presentation items
  - Average score for all other items
  - Omitted GRFs from LC core faculty
  - Analyses limited to students who completed a core clerkship in first block and last block
    - Clinic group: 57/86 (66%)
    - LC group: 76/99 (77%)
End-of-Year 3 OSCE

- High Stakes
- 7 Stations
- Four domain means were compared between the LC and clinic groups with Mann Whitney U tests
  - Analyses limited to students who completed the clerkship year
    - Clinic group: 78/86 (91%)
    - LC group: 89/99 (90%)
Average for CMC Specific Items

Scores were analyzed with a 2 (Rotation: first, last) x 2 (Group: clinic, LC) ANOVA

Significant main effect of Rotation, $p \leq 0.001$, $\eta^2_p = 0.11$
No main effect of Group, $p = 0.740$
No interaction of Rotation x Group, $p = 0.113$
Scores were analyzed with a 2 (Rotation: first, last) x 2 (Group: clinic, LC) ANOVA.

Significant main effect of Rotation, $p = 0.013$, $\eta^2_p = 0.05$
No main effect of Group, $p = 0.584$
No interaction of Rotation x Group, $p = 0.340$
End-of-Year 3 OSCE Mean Scores by Domain for 7 Cases

OSCE Domain

History

Physical Exam

Communication

Write Up

P = 0.005

P = 0.868

P = 0.027

P = 0.202
Conclusions

- No meaningful differences in clerkship global rating form scores between LC and Clinic students
- 3% increase for History Gathering and 1% increase for Write-up on OSCE for LC students relative to Clinic students
Next steps

- Look beyond GRF scores to see if there are any domain specific nuances in comments by faculty and residents
- Collect data from more cohorts
- Consider different outcomes